

Troubleshooting Guide Outline

NOTE: Gate 2 is defined as the gate on the other side of the drive from the control box.

1. Gate 1 or Gate 2 will not operate. Single gate installation.
2. Gate 1 or Gate 2 will not operate. Dual gate installation.
3. Gate 1 and Gate 2 will not operate. Dual gate installation.
4. Single or Dual gate installation opens or closes very slow.
5. Single or Dual gate installation will not automatically close.
6. Single or Dual gate installation automatically opens instead of automatically closing.
7. Gate begins to open or close, but stops and reverses after a couple of seconds.
8. Transmitter (Remote control) will not operate the gate.
9. Photo eye or other safety accessory will not reverse the gate when closing.
10. Pressing the “RESET” button only, causes the gate to operate (open, close and stop) acts like transmitter.
11. Transmitter operating range seems short.

Terms and Definitions

Control board -

See page 21, figure 40.

Receiver -

See page 24, figure 46

Transmitter -

Hand held unit with 2 buttons, used to operate the gate, sends signal to receiver when button is pressed see page 24 figure 46.

Linear Actuator -

Connected to gate and hinge post, contains the motor, gearbox.

Connector -

Control board has Six, two white 8-pin connectors (X1 and X2) are used to connect linear actuator to control board and one 7-pin connector (J2) (located bottom center of control board) for accessory wiring, two 2 pin header (J3, J4) for entrapment siren & external “Reset” and one four pin header (J1) for receiver.

Push Button -

Two are located on the control board. “Open/Close command” used to operate the gate and the “Reset” used to reset the control board after current sensing twice before a limit is reached see page 21 figure 39.

Control Switches -

Used to turn “ON” or “OFF” specific control board functions see page 21 figure 41.

Sensitivity adjustments-

Located on the control board see page 20 figure 37. These adjustments are the primary safety feature. If the gate comes in contact with an object it will stop and reverse. These adjustments control the amount of pressure applied to an object before reversing the gate.

Charge Controller -

Located inside the control box see page 17 figure 32. This is the battery charger. The input power for this device can be either from a transformer (supplied) or from a solar panel.

Transformer -

This device connects to a 110 VAC electrical outlet and converts it to a low AC voltage that can be connected to the charge controller to provide continuous charging of the battery.

Open and Close Limit -

This refers to the fully open or closed position. These are adjusted on the control board see page 20, figure 38.

Entrapment Siren -

If the control board sensitivity circuit senses an obstruction it will reverse the gate and if a second obstruction is detected before the gate reaches a fully open or close limit the control board will shut down the opener and sound the entrapment alarm for five minutes or until the “Reset” button is pressed.

1. My single gate will not operate: (connected to Gate I or Gate II)

STEP 1 Open control box cover and locate the “Open/Close Command” push button and press it to operate the gate.

STEP 2 Press the “Reset” push button located above the open close command, then push the “open/close command” push button to operate the gate.

STEP 3 When pressing the “open/close command” push button, listen for a clicking sound, if click is heard then verify:

- A. Verify the correct control switch is “ON” corresponding to the Gate 1 or Gate 2 connector the linear actuator is connected to.
- B. If step A above check good, then press the “Open/Close Command” push button on the control board. If a clicking sound is heard coming from the control board then the problem is most likely low power.
- C. Low power can be caused by two things – Low battery voltage or a bad connection at the battery. Battery will need to be load tested to verify it is good. Replace battery or correct connection problem at battery.

STEP 4 Remove the receiver connector that is plugged into the J1 connector. Press the “Open/Close Command” button and verify gate operates.

STEP 5 Disconnect linear actuator connector from the control board and connect it to the other (Gate 1 or Gate 2) connector on the control board. Then set the corresponding control switch to the “ON” position. Press the “Open/Close Command” button and verify gate operates. If gate operates on the other connector that is acceptable.

STEP 6 If gate still does not operate please call the Sentry support staff for more information.

2. Gate 1 or Gate 2 will not operate. Dual gate Installation

STEP 1 These instructions are for the failure of one gate to operate in a dual gate installation.

STEP 2 Identify the gate that will not work and check the control switch for that gate and verify that it is turned “ON”.

STEP 3 Swap the Gate 1 and Gate 2 linear actuator connectors on the control board. If problem moves to other gate then the control board is bad.

STEP 4 If problem remains in the same gate then the problem is either a wire problem or linear actuator problem. Since it is a possible wire problem we need to check the following:

- A. Wire harness for cuts, nicks or bad splices if splice exist.
- B. If gate with problem is the gate located on the other side of drive from control box (Gate 2) the cable under the drive needs to be verified good. This is done by using a voltmeter and going to the junction box located below the Gate 2 linear actuator. Locate the red wire with white stripe and the black wire with white stripe and then operate the gate and check voltage on these two wires (expect 12 VDC).
- C. If voltage is present when gate should be operating then the problem is most likely the linear actuator.
- D. If voltage is not present when gate should be operating then move back to the control box side and check voltage on same two wires located in the wire compartment.
- E. If voltage is present on the control box side of drive then the cable in the ground must be damaged.
- F. If voltage is not present in the control box then we have missed something in steps 2 or 3, recheck.

3. Gate 1 and Gate 2 will not operate. Dual gate installation

STEP 1 These instructions are for the failure of both gates to operate in a dual gate installation.

STEP 2 Verify that control switches 3 and 4 are turned “ON”.

STEP 3 Verify the red and black wires on the Plug N Go harness are connected to the battery correctly. Red connects to positive and black connects to negative post on the battery.

STEP 4 Verify that the battery is charged, press the “Open/Close Command” push button, if a clicking sound is heard from the control board then most likely the battery is dead. Have the battery load tested to verify it is bad.

STEP 5 If battery checks good (passed the load test) then the control board is most likely the problem. To think that 2 motors have gone bad would not make sense but is also a possibility.

4. Gate 1 or Gate 2 (Gate 1 and Gate 2 if dual gate) operating speed has slowed down

NOTE: When the gate is running slow the reason is low power, two things need to be considered. Battery condition (replace or charge) and the “_” ring terminals located on the Plug N Go harness which are connected to the battery. The ring terminals can become corroded and need replacing over time.

STEP 1 Determine which situation your operator falls into below:

NOTE: The Sentry charge controller does not output any voltage or current when disconnected from the battery, you cannot check the charge controller by disconnecting from battery and measuring output voltage. To check charge controller output, disconnect from battery, measure battery voltage and note. Reconnect charger and monitor battery voltage it should rise above the battery voltage noted above.

STEP 2 The charge controller has LED indicators (lights) on the faceplate, observe the LED’s that are on or not and refer to the troubleshooting directions for charge controller on page 18.

STEP 3 If none of the above check bad then remove battery and have it load tested at a battery shop. Replace if bad.

5. Single or Dual gate installation will not automatically close

NOTE: If control switch number 1 is turned “ON” then the gate will only auto close from the fully open position.

STEP 1 Locate the “Open/Close Command “push button; press the button to verify that the gate will close. If gate closes correctly then proceed to the steps below. If gate will not close go to step 5.

STEP 2 Verify that control switch number 1 is turned “ON”. Gate must be cycled once switch is turned “ON” for control board to recognize switch setting.

STEP 3 If your installation is a single gate verify which linear actuator connector (Gate 1 or Gate 2) on control board you are using. Then verify that the control switch for that Gate is turned “ON” and the other is turned “OFF”.

STEP 4 If photo eye or other safety accessory is connected to J2 then we need to verify correct operation of the accessory. To determine if this might be the problem disconnect the wire that is connected to J2 pin 5 and cycle gate to see if problem persists. If gate auto closes, accessory disconnected is holding gate open verify wiring and operation of device.

STEP 5 The receiver P2 relay could be set for latch open mode verify as follows:

- A. Press the transmitter button 2 one time, then press the transmitter button 1 one time and see if gate closes. If gate closes then the hold open mode was enabled. To understand this feature see page 24.

6. Single or dual gate installation gate auto opens instead of auto closing

STEP 1 In this condition the open time can be controlled by adjusting the auto close timer adjustment.

STEP 2 If installed in the pull to open configuration then control switch number 2 should be turned “OFF” verify it is. If installed in the push to open configuration verify switch is turned “ON”.

STEP 3 Gate is trying to close too far. Readjust close limit adjust for gate 1 or gate 2 to the correct stop position.

STEP 4 If time before auto opening cannot be adjusted and occurs in a couple of seconds after closing then the close limit adjustment of one or both gates is misadjusted. The feature that is causing the gate to open is the current sense circuit on the control board. The gate is trying to close farther than possible and it has traveled to the full extent of the linear actuator. Verify that linear actuator harness has no cuts or nicks.

STEP 5 Verify correct installation of the universal actuator bracket. Possible cause is incorrect installation of the gate bracket or linear actuator bracket. Verify and correct as required.

7. Gate begins to open or close and stops and reverses after a couple of seconds

STEP 1 This occurs when the sensitivity circuit on the control board senses an obstruction. Verify that the gate is not obstructed by some object at the point where it reverses. Could also be due to hinges binding or gate contacting ground.

STEP 2 This is an adjustable feature and the cause could simply be an adjustment of the Gate 1 or Gate 2 sensitivity. Turn the sensitivity adjustment toward a minimum setting and always set the Gate 1 and Gate 2 adjustment to the same setting on a single gate installation. In dual gate installation adjust both as necessary.

8. Transmitter (remote control) will not operate the gate

STEP 1 Remove the J1 connector from the control board and then reconnect, press transmitter button to verify operation.

STEP 2 Open the control box and press the transmitter button to operate the gate, listen closely for a clicking sound coming from the receiver. Click should be heard when the transmitter button is pressed if transmitter and receiver programming is correct and they are working correctly a sound should be heard.

- STEP 3 If click was not heard verify that “Programming transmitter and Receiver” steps on page 24 have been completed.
- STEP 4 If clicking sound was not heard, verify that transmitter battery is good, replace if necessary.
- STEP 5 If click was not heard verify that transmitter dip switches were not changed after initial programming on page 24, if so then reprogram transmitter to receiver following steps on page 24 or set back to original setting recorded on page 24.
- STEP 6 If click was not heard verify that receiver has power applied to it by pressing the P1 button on receiver and holding down until green light comes “ON” then release P1. If light comes “ON” then power to unit is correct. If light does not come “ON” verify that connector J1 is connected to control board correctly. If light does not come “ON” and power to receiver is good then receiver is possibly bad.
- STEP 7 If clicking sound was heard then the problem might possibly be the control board. Verify control board is not the problem. Perform the following steps:
- A. Remove the J1 connector from the control board
 - B. With J1 removed use a small screw drive to short the center 2 pins on J1 together. When these 2 pins are connected the gate should operate. If not the control board has a problem perform the next step to determine the extent of the problem.
 - C. Connect a short wire to the J2 connector pin 2 (J2 pin 1 is located on the left end of J2) and then touch J2 pin 3 with the other end of the wire gate should operate, if not control board is bad.
 - D. If gate operates then remove the wire from J1 pin 2 on the receiver connector and connect it to J2 pin 2, verify operation.

9. Photo-eye or other safety accessory will not reverse the gate when closing or hold the gate open

- STEP 1 The first thing to check is the accessory wiring. See accessory wiring information on page 32.
- STEP 2 Accessory being used should be wired with the N/O wire connected to J2 pin 5 on the Sentry control board.
- STEP 3 Verify the control switch “Operating Direction Reverse” switch is set in the correct position, Pull to Open switch is OFF.
- STEP 4 Connect a wire to J2.5 then start the gate closing and then touch the free end of this wire to J2.2. Gate should stop and reverse. If gate reverses then the control board is working correctly. If not the accessory is the problem.

10. Pressing the “RESET” button only, causes the gate to operate (open, close and stop) acts like transmitter.

- STEP 1 This problem is probably due to a bad receiver.
- STEP 2 To isolate this disconnect the J3 connector from the control board.
- STEP 3 With J3 disconnected see if Reset button causes gate to operate. If gate no longer operates when Reset is pressed then the receiver was the cause.
- STEP 4 Connect J3 back to Sentry control board and see if problem returns. If problem returns then the receiver is bad.

11. Transmitter operating range seems short.

- STEP 1 Replace the batteries in the transmitter.
- STEP 2 Verify that the receiver antenna (short wire connected to the receiver) is not twisted or rolled up. It should be pointing toward the control box cover.
- STEP 3 Some type of radio frequency interference is obstructing signal from transmitter to receiver. Possible causes are electric fence, high voltage electric lines in ground or overhead. Radio towers in the area, military bases etc.. In some cases this might not be avoided or possibly a different frequency receiver needs to be installed.